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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,467	05/11/2001	Terry Lee Bray	30705-68918	6692
7590	08/06/2004		EXAMINER	
Barnes & Thornburg 11 South Meridian Street Indianapolis, IN 46204			SONG, MATTHEW J	
			ART UNIT	PAPER NUMBER
			1765	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/853,467

Applicant(s)

BRAY, TERRY LEE

Examiner

Matthew J Song

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 12 July 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see continuation sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1, 2, 4, 5 and 14-41.

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____

NADINE G. NORTON
SUPERVISORY PATENT EXAMINER

Response to Arguments

Applicant's arguments filed 7/12/2004 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Knittel reference teaches restrictions or conductance limiters on the path between a source material and a growing crystal in a vapor growth method can improve the stoichiometric control and produce superior quality crystal when the cross-sectional area is reduced (col 1, ln 15-51). Therefore, the teaching of using a conductance limiting channel between a source material and a growing crystal in a vapor growth process can be used in the vapor diffusion method taught by Heilig et al (abstract) to obtain a superior crystal. Furthermore, Heilig et al teaches the extent of diffusion and the rate of change of the concentration can be adjusted by the degree of overlap with the reservoirs, which is a teaching that Heilig et al also recognizes that the extent of diffusion between the source and the crystal is important. Therefore, a person of ordinary skill in the art would have been motivated to use the diffusion limiting channel taught by Knittel to control the extent of diffusion.

In response to applicant's argument that Heilig nor Knittel addresses the problem that are solved by the present invention, the fact that applicant has recognized another advantage which

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would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). The prior art teaches all of the limitations of the instant claims, as discussed in the Final Rejection filed on 5/28/2004; therefore the advantages described by applicant would have naturally flowed from the prior art teachings.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the present invention is not complex (pg 7)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments against the references individually (pg 8), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Knittel is not relied upon to teaching a more than one sample, this feature is taught by Heilig et al.

Applicant's argument that there is not motivation to combine Heilig with Knittel is noted but is not found persuasive. Applicant alleges the channel taught by Knittel must extend into the liquid sample (pg 8-9). The Examiner agrees that Knittel's invention is directed to a channel extending into a liquid source, as suggested by applicant. However, the Examiner maintains that the channel is not required to extend into a liquid sample to limit diffusion between a source and growing crystal in a vapor growth process. Knittel generally teaches using conductance limiting channel on the path of the source material and the growing crystal in a vapor growth method to

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control diffusion. The conductance limiting channel can be used to replace the channel taught by Heilig et al, which does not restrict diffusion between the source and growing crystal because Knittel teaches the advantages of using diffusion limiting channels.

In response to applicant's argument that the prior art does not teach a first end of the device configured **for** placement in a well of the plate containing a reservoir solution (pg 9-10, 11 and 13), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). The channel taught by Knittel contains a first end and is a tube shape device; therefore is capable of performing the claimed intended use.

In response to applicant's arguments against the references individually (pg 10), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Knittel is not relied upon to teach a well, this feature is taught by Heilig et al.

In response to applicant's argument that the channel unit and the selection unit rotate individually to align the reservoir chamber (pg 10), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior

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art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Heilig et al discloses a rotating part 112. The combination of Heilig et al and Knittel does not teach the channel rotates, as suggested by applicant. However, the Examiner maintains the apparatus taught by Heilig et al is capable of performing the claimed intended use of rotating because the channel unit is a separate, independent housing part, which would be capable of being rotated.

Applicant's argument regarding claim 19 is noted but is not found persuasive. Applicant alleges Heilig and Knittel do not teach a seal. The Examiner maintains Heilig et al teaches sealing with O-rings 104, 120 and a sealing washer 92, which reads on applicant's seal. Applicant has not provided any persuasive argument show any differences between the claimed seal and the seal taught by Heilig et al; therefore the argument is not found persuasive.

Applicant's argument against the combination of Kim et al and Knittel has been considered but is not found persuasive. Applicant alleges the diffusion channel of Knittel does not comprise an opening and would render Kim's device unsatisfactory for its intended purpose. The Knittel reference teaches a diffusion limiting channel with two openings between a source and a growing crystal (Fig 1). Reducing the cross sectional area of the diffusion channel 30 of Kim et al would not render Kim's device unsatisfactory, as alleged by applicant, because a pathway would still exist between the reservoir 28 and growing crystal. The control of diffusion rate is taught by Knittel and Heilig et al to be desirable ('689 col 1, ln 15-51 and '284 col 4, ln 40-45).